210 JOURNAL, BOMBAY NATURAL HIST. SOCIETY, Vol. 61 (1)

Iwata (1953) describes several Japanese species of Eumenes which have the capacity to form both half and complete pots. Others can make only one of the other. Fabre describes the same versatility in a European species but we have only seen his descriptions in popular extracts in English.

GENETICS AND BIOMETRY LABORATORY, GOVERNMENT OF ORISSA, BHUBANESWAR-3.

S. D. JAYAKAR H. SPURWAY

BHUBANESWAR. October 12, 1963. C. R. MEEKER J. E. MEEKER

REFERENCES

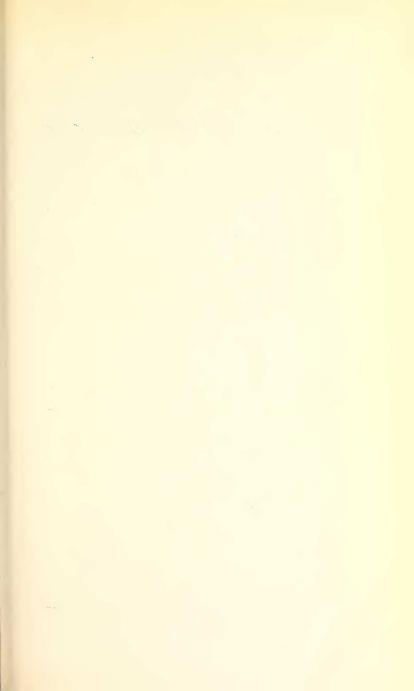
ADRIAANSE, A. (1947) : Ammophila campestris Latr. und Ammophila adriaan-sei Wilcke. Behaviour 1: 1-35. DUTT, G. L. (1913) : Life histories of Indian Insects (Hymenoptera). Mem. Dept. Agricult. India, Entom. Ser., 4: 183-267.

IWATA, Kunio (1953): Biology of Eumenes in Japan (Hymenoptera: Vespidae). Mushi 25, Pars 6: 25-46. OLBERG, G. (1959): Das Verhalten der Solitären Wespen Mitteleuropas. pp. xiv + 402. Berlin.

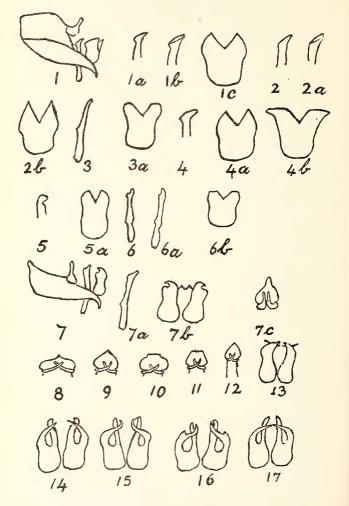
14. GENITALIA OF THE BUTTERFLY GENERA SURENDRA MOORE AND EVERES HUBNER

(With a plate)

Surendra Moore. Only the upper part of the aedeagus is shown except in the cases of figures 3, 6, and 7 a. The outer side of the conjoined clasps is always shown, the clasps being pressed down on glass to straighten the edges which curl inwards. Fig. 1 is the armature of vivarna quercetorum; fig. 1 a is the correct view of its aedeagus; fig. 1 b is its aedeagus when tilted to or twisted from the observer or when viewed from slightly above. This view 1 b is frequent because the aedeagus is often twisted on its stem and gives a wrong idea of the true shape; again the orifice may be open and the true form of its edges cannot be seen. Fig. 1 c is its conjoined clasps. Fig. 2 is the correct view of the aedeagus of vivarna vivarna; fig. 2a is the aedeagus when twisted away from or tilted towards the observer or when viewed from slightly above. The shape of aedeagus of both the above forms is like an inverted foot. v. quercetorum has a well-defined heel of the foot and a narrow toe tip while v. vivama has an ill-defined heel, noticeable only on careful examination. The



JOURN. BOMBAY NAT. HIST. SOC.



Genitalia of the butterfly genera Surendra Moore and Everes Hübner